

WHAT IS CLAIMED IS:

*Suba* 1. A method of configuring a data storage system, the method comprising using a high-level language description to configure the data storage system.

2. The method of claim 1, wherein the high-level language specifies configuration goals.

3. The method of claim 1, wherein the high-level language description includes a declarative language.

4. The method of claim 1, wherein the high-level language includes generic configuration commands.

5. The method of claim 1, wherein the high-level language description includes device/host-independent commands.

6. The method of claim 1, further comprising the step of translating the high-level language description into device/host-specific commands.

7. The method of claim 6, wherein the high-level language description is translated directly into the device/host-specific commands.

8. The method of claim 6, wherein the high-level language description is translated into device/host-independent commands and the device/host-independent commands are translated into device/host-specific commands.

9. The method of claim 8, wherein first software modules are accessed to translate the high-level language description into the independent commands; and wherein second software modules are accessed to translate the independent commands into the specific commands.

10. The method of claim 6, further comprising performing rule checking on the high-level language description and the commands.

11. The method of claim 6, wherein specific commands are generated only for device/host parameters that should be changed.

12. The method of claim 6, further comprising translating the high-level description into device-specific queries, and generating commands from responses to the queries.

13. A method for configuring a data storage device, the method comprising:

generating a high-level language description that specifies configuration goals for the data storage device; and

5 translating the high-level language description into device/host-independent commands.

14. The method of claim 13, further comprising sending the device/host-independent commands to a host that can communicate with the data storage device.

15. The method of claim 13, further comprising translating the device/host-independent commands into device/host-specific commands.

16. The method of claim 15 further comprising executing the device/host-specific commands to configure the data storage device.

17. The method of claim 15, wherein commands are generated only for those device/host parameters that will be changed.

18. The method of claim 13, further comprising performing rule checking on the high-level language description and the commands.

19. The method of claim 13, wherein the data storage device is a disk array.

20. Apparatus for configuring a data storage system, the apparatus comprising a processor for processing a high-level language description of the data storage system into configuration commands.

21. The apparatus of claim 20, wherein the processor also translates the high-level language description into commands

22. The apparatus of claim 21, wherein the processor translates the high-level language description directly into device/host-specific commands

23. The apparatus of claim 21, further comprising memory for storing first and second modules, each first module translating high-level language into independent commands, each second module translating independent commands into specific commands.

24. The apparatus of claim 21, wherein the processor also performs rule checking on the high-level language description and the commands.

25. The apparatus of claim 21, wherein the processor generates commands are generated only for device/host parameters that should be changed.

26. The apparatus of claim 21, wherein the processor also queries devices of the data storage system, and generates commands from responses to the queries.

27. An article for instructing a processor to configure a data storage system, the article comprising:

computer memory; and

data encoded in the computer memory, the data instructing the

5 processor to process a high-level language description of the data storage system; and translate the high-level description into specific commands.